UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/826,236	04/04/2001	Scott W. Huffer	149169	2449

7590 05/04/2004

DRINKER BIDDLE & REATH LLP
ONE LOGAN SQUARE
18TH AND CHERRY STREETS
PHILADELPHIA, PA 19103-6996

EXAMINER	
DICUS, TAMRA	
ART UNIT	**PAPER NUMBER**
1774	

DATE MAILED: 05/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/826,236	HUFFER ET AL.	
	Examiner	Art Unit	
	Tamra L. Dicus	1774	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 December 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22 and 26-28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-22 and 26-28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1 and 3-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5783266 to Gehrke in view of USPN 4,177,310 to Steeves et al.

Gehrke teaches a multilayered laminate for chewing gum packaging in this order: a paper outer layer, an adhesive layer of polyethylene (a polymer layer of instant claims 1 and 4), a metal foil of aluminum or thin layer of metal formed by vapor deposition, see col. 4, lines 65-68, col. 5, line 10 and lines 39-45. Gehrke does not teach an electron cured beam cured layer *per se* over a paper layer (instant claim 1) or ink layer between paper and electron beam layer (instant claim 3) nor its composition (instant claims 5-7). However Gehrke explains at col. 4, lines 38-41 additional layers may also include a suitable printing surface.

Steeves teaches a packaging multi-layer laminate comprising in order:

- A paper layer,
- An electron beam cured layer

at column 2, lines 38-47.

Steeves teaches an electron beam cured layer on the other side of the paper, stating it is known to cure oligomers and monomers such as epoxy and acrylic (epoxy acrylate- claims 5-7) resins at col. 3, lines 55-60 and col. 4, lines 1-4, with an high electron beam on a paper substrate

for the purpose of providing a smooth and uninterrupted resin film surface at col. 3, lines 26-29 and col. 3, lines 59-col. 4, lines 20. Steeves and Gehrke are analogous art because they are from the same field of endeavor, namely the food packaging art. Hence it would have been obvious to one of ordinary skill in the art to combine an electron beam cured layer on the paper side of Gehrke for the purpose of providing an economical substrate having smooth and impervious surface as taught by Steeves at col. 3, lines 26-29 and col. 3, lines 59-col. 4, lines 20.

Gehrke does not teach the electron beam energy per instant claims 8-11. Steeves teaches curing an electron beam curable layer with beams of 2-3 Megarads (meeting claims 10-11) at col. 4, line 37. However, the phrases, "cured by..." are process limitations and are given no patentable weight. The process does not change the product. See MPEP 2113. Furthermore, the invention defined by a product-by-process invention is a product NOT a process. *In re Bridgeford*, 357 F. 2d 679. Applicants products and the prior art are the same.

3. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5783266 to Gehrke in view of USPN 4,177,310 to Steeves et al., as applied to claim 1 above, further in view of USPN 6,228,486 to Kittel et al.

The combination of Gehrke and Steeves is silent to adding slip agents of claim 12. Kittel teaches a thermal transfer laminate. At col. 10, lines 30-65, Kittel teaches it is known to cure a resin layer of oligomers, such as acrylates such as epoxy resins (epoxy acrylate) providing any radiation curable coating material (electron beam cured layer) on a paper substrate. Hence it would have been obvious to one of ordinary skill in the art to combine slip agents in the curable layer of Gehrke and Steeves because Kittel teaches it is conventional to use in a cured resin composition as taught by Kittel at col. 10, line 24.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5783266 to Gehrke in view of USPN 4,177,310 to Steeves et al., as applied to claim 1 above, further in view of USPN 5,110,643 to Akao et al.

Gehrke in view of Steeves is relied upon above. The combination does not teach an additional wax layer on an electron beam cured layer. Akao teaches a multilayered packaging material for food (see col. 14, line 17). The laminate of Akao comprises paper, metal foil and/or inorganic metallic layers, polymer layers, and a protective layer of wax in various arrangements as shown in Figures 1-40. Col. 9, lines 12-18 teach the protective layer of wax over a metallic membrane. Akao explains at col. 8, lines 43-68 the metallic membrane of aluminum may be on one or both faces of a flexible sheet layer and lists paper and polymer layers as a type of flexible material at col. 9, lines 30-45. See also col. 1, lines 20-26 and lines 45-50 teaching using aluminum foil. A gas barrier layer is also provided at col. 6, lines 44-60 over papers and polyethylene films. While Akao does not teach wax disposed on an electron beam cured layer, it would have been obvious to one of ordinary skill in the art to provide an protective layer of wax over the entire laminate package the combination of Gehrke and Steeves because Akao teaches wax is used as a protective layer for a multilayered package that includes paper, foil and polymer layers as cited above.

Claims 26-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5783266 to Gehrke in view of USPN 4,177,310 to Steeves et al., and further in view of USPN 6,228,486 to Kittel et al. and USPN 5,110,643 to Akao et al.

Gehrke teaches a multilayered laminate for chewing gum packaging in this order: a

paper outer layer, an adhesive layer of polyethylene, a metal foil of aluminum or thin layer of metal formed by vapor deposition, see col. 4, lines 65-68, col. 5, line 10 and lines 39-45. Gehrke does not teach an electron cured beam cured layer *per se* over a paper layer or ink layer between paper and electron beam layer nor its composition. However Gehrke explains at col. 4, lines 38-41 additional layers may also include a suitable printing surface.

Steeves teaches a packaging multi-layer laminate comprising in order:

- A paper layer,
- An electron beam cured layer

at column 2, lines 38-47.

Steeves teaches an electron beam cured layer on the other side of the paper, stating it is known to cure oligomers and monomers such as epoxy and acrylic (epoxy acrylate) resins at col. 3, lines 55-60 and col. 4, lines 1-4, with an high electron beam on a paper substrate for the purpose of providing a smooth and uninterrupted resin film surface at col. 3, lines 26-29 and col. 3, lines 59-col. 4, lines 20. Steeves and Gehrke are analogous art because they are from the same field of endeavor, namely the food packaging art. Hence it would have been obvious to one of ordinary skill in the art to combine an electron beam cured layer on the paper side of Gehrke for the purpose of providing an economical substrate having smooth and impervious surface as taught by Steeves at col. 3, lines 26-29 and col. 3, lines 59-col. 4, lines 20.

Gehrke and Steeves is silent to adding fixing additives comprising slip agents of instant claims 26-27. Kittel teaches a thermal transfer laminate. At col. 10, lines 30-65, Kittel teaches it is known to cure a resin layer of oligomers, such as acrylates such as epoxy resins (epoxy acrylate) providing any radiation curable coating material (electron beam cured layer) on a paper

substrate. Hence it would have been obvious to one of ordinary skill in the art to combine slip agents in the curable layer of Gehrke and Steeves because Kittel teaches it is conventional to use in a cured resin composition as taught by Kittel at col. 10, line 24.

The combination of Gehrke and Steeves does not teach an additional wax layer on an electron beam cured layer. Akao teaches a multilayered packaging material for food (see col. 14, line 17). The laminate of Akao comprises paper, metal foil and/or inorganic metallic layers, polymer layers, and a protective layer of wax in various arrangements as shown in Figures 1-40. Col. 9, lines 12-18 teach the protective layer of wax over a metallic membrane. Akao explains at col. 8, lines 43-68 the metallic membrane of aluminum may be on one or both faces of a flexible sheet layer and lists paper and polymer layers as a type of flexible material at col. 9, lines 30-45. See also col. 1, lines 20-26 and lines 45-50 teaching using aluminum foil. A gas barrier layer is also provided at col. 6, lines 44-60 over papers and polyethylene films. While Akao does not teach wax disposed on an electron beam cured layer, it would have been obvious to one of ordinary skill in the art to combine an protective layer of wax over the entire laminate package of the combination of Gehrke and Steeves because Akao teaches wax is used as a protective layer for a multilayered package that includes paper, foil and polymer layers as cited above.

4. Claims 13-14 and 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,478,643 to Peiffer et al. in view of USPN 4,177,310 to Steeves et al.

5. Peiffer teaches a matte transfer metallization film for chewing gum in this order: a film (a polymer layer - claim 13), a metal layer (also inorganic layer-claim 13), a polymer/adhesive layer (bonding layer), a paper support (regarding claims 13), refer to col. 1, lines 20-40 and col. 14, lines 15-22. Peiffer teaches depositing a metal layer of aluminum (instant claim 17) (col. 14,

lines 30-33) via various deposition processes at col. 14, lines 39-45 onto a polymer film of polyethylene and/or polypropylene (addressing claim 14) at col. 4, lines 1-50. Peiffer is silent to providing the electron cured beam cured layer over a paper layer.

Steeves teaches a packaging multi-layer laminate comprising in order:

- A paper layer,
- An electron beam cured layer

at column 2, lines 38-47.

Steeves teaches an electron beam cured layer on the other side of the paper (instant claim 20), stating it is known to cure oligomers and monomers such as epoxy and acrylic (epoxy acrylate) resins at col. 4, lines 1-4, with an high electron beam on a paper substrate for the purpose of providing a smooth and uninterrupted resin film surface at col. 3, lines 26-29 and col. 3, lines 59-col. 4, lines 20. Hence it would have been obvious to one of ordinary skill in the art to modify the film of Peiffer to add an electron beam cured layer over a paper for the purpose of providing an economical substrate having smooth and impervious surface as taught by Steeves at col. 2, lines 40-48 and col. 3, lines 26-29 and col. 3, lines 59-col. 4, lines 20.

Further regarding claim 16, Steeves teaches it is well known in the art to metallize a polymer layer to produce an inorganic layer at col. 3, lines 59-60, lines 67-68, and at col. 4, lines 1-4 Steeves lists suitable polymers and inorganic layers such as aluminium. However, the act of *metallizing* is a process limitation and is given no patentable weight. Product-by-process claims are not limited to the manipulations of the recited steps, only the structure implied by the steps. Patentability of an article depends on the article itself and not the method used to produce it (see MPEP 2113). Applicants package and the prior art are the same.

6. Claims 15 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,478,643 to Peiffer et al. in view of USPN 4,177,310 to Steeves et al., and further in view of USPN 6,045,654 to Kjelgaard et al.

7. Peiffer in view of Steeves is relied upon above. Regarding claims 15 and 18, Peiffer does not expressly state a polymer layer of polyethylene terephthalate adjacent to an inorganic layer. Kjelgaard states a packaging laminate comprising a paper substrate having a barrier layer that is of an inorganic material such as aluminium foil, aluminium oxide, and silica (silicon oxide, same material Applicant discloses as a barrier to oxygen and moisture) further comprising polypropylene or polyethylene terephthalate produced by metallizing the polymer layer at col. 3, lines 16-30. Kjelgaard and Steeves are analogous art because both references are in the same field of endeavor and address the same or similar problem with which the inventor was involved, such as packaging laminates. Therefore, it would have been obvious to one of ordinary skill in the art to modify the laminate of Peiffer to substitute a polymer layer of polyethylene with a polymer layer of polypropylene or polyethylene terephthalate adjacent to an inorganic layer of an oxide comprising aluminium and silicon or aluminium foil, since Kjelgaard proves resin compatibility as cited above.

8. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over USPN Peiffer et al. in view of USPN 4,177,310 to Steeves et al, as applied to claim 13 above, and further in view of USPN 5,783,266 to Gehrke.

Peiffer is relied upon above. Regarding claim 19, Peiffer is silent to teaching an ink layer printed on a paper layer, adjacent to an electron beam cured layer. Gehrke teaches ink coated on a suitable printing substrate, (e.g. paper) and one or more layers on the printed layer to protect the ink at col. 4, lines 55-60 and col. 7, lines 42-50. Gehrke, Peiffer and Steeves are analogous art because all references are in the same field of endeavor, namely the multi-laminate packaging technology.

OK

It would have been obvious to one of ordinary skill in the art to combine the ink layer of Gehrke with the combination of Peiffer and Steeves in order to provide a package with printed information and to protect the ink (Figures 6-8, col. 4, lines 39-41, and col. 7, lines 42-50 of Gehrke).

Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,478,643 to Peiffer et al. in view of USPN 4,177,310 to Steeves et al., as applied to claim 13 above, and further in view of USPN 5,110,643 to Akao et al.

Peiffer in view of Steeves is relied upon above. Regarding claim 20, Peiffer does not specifically express a wax layer disposed on a curable beam layer opposite the paper. Akao teaches a multilayered packaging material for food (see col. 14, line 17). The laminate of Akao comprises paper, metal foil and/or inorganic metallic layers, polymer layers, and a protective layer of wax in various arrangements as shown in Figures 1-40. Col. 9, lines 12-18 teach the protective layer of wax over a metallic membrane. Akao explains at col. 8, lines 43-68 the metallic membrane of aluminum may be on one or both faces of a flexible sheet layer and lists paper and polymer layers as a type of flexible material at col. 9, lines 30-45. See also col. 1, lines 20-26 and lines 45-50 teaching using aluminum foil. Akao, Peiffer, and Steeves are analogous art because all references are in the same field of endeavor, namely the multi-laminate packaging technology. While Akao does not teach wax disposed on an electron beam cured layer, it would have been obvious to one of ordinary skill in the art to provide a protective layer of wax over the entire laminate package of the combination of Peiffer and Steeves because Akao teaches wax is used as a protective layer for a multilayered package that includes paper, foil and polymer layers as cited above.

Claims 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,478,643 to Peiffer et al. in view of USPN 4,177,310 to Steeves et al., as applied to claim 13, and further in view of USPN 6,228,486 to Kittel et al.

Peiffer in view of Steeves is relied upon above. Peiffer is silent to adding the specific monomers, oligomers, and polymers of claim 21, nor slip agents of 22. Kittel teaches a thermal transfer laminate of similar materials of Peiffer and Steeves used in labels and adhered to paper substrates (col. 1, lines 5-8). Kittel teaches wax and slip agents are conventional to add to a laminate and UV curable resin (col. 10, lines 24-45) for coating inks. At col. 10, lines 30-65, Kittel teaches a resin layer of oligomers, such as acrylates such as epoxy resins (epoxy acrylate) are primary ingredients for any radiation curable layer, cured by an electron beam (electron beam cured layer), designed to increase the adhesion of coatings to a substrate (col. 9, lines 48-50). Kittel, Peiffer, and Steeves are analogous art because they involve similar problem with which the inventor was involved, using specific wax ingredients for coating inks. Hence it would have been obvious to one of ordinary skill in the art to combine the aforementioned monomer/oligomers/polymers of Kittel to the combination of Peiffer and Steeves because Kittel teaches the polymers and slip agents are conventional in a cured resin composition and commercially available (col. 9, lines 48-50 and col. 10, lines 24-65 of Kittel). Peiffer does not teach the slip agents reacted-in. With respect to slip agents that have become reacted-in, it is elementary that the mere recitation of newly discovered function or property, inherently possessed by things in the prior art, does not cause a claim drawn to those things to distinguish over the prior art." *In re Swinehart et al.*, 169 USPQ 226 at 229. Since the combination of Peiffer, Steeves, and Kittel, references teach all of Applicant's claimed compositional and

positional limitations, it is inherent that the reference article function in the same manner claimed by Applicant. The burden is upon Applicant to prove that the subject matter shown to be in the prior art does not possess the characteristic relied on.

9. Claims 26-27 are rejected under 35 U.S.C. 103(a) as obvious over USPN 6, 010,757 to Yamamoto et al. in view of USPN 6,228,486 to Kittel et al.

10. Yamamoto teaches a surface coating composition comprising a base layer of plastic film of polyethylene, polypropylene, PET, paper, aluminum, at col. 11, lines 44-65. Over the base, a curable coating via corona discharge (an electron beam cured coating) of resins such as polyethylene, polypropylene, PET at col. 12, lines 50-61. An additional coating of metals or metals oxides may be further formed over the resinous coating to provide a gas barrier at col. 12, lines 35-45. Lamination of gas barrier layers and films may be attached to paper, adhesive or wax and may be used between the paper and gas barrier, (col. 13, lines 1-5, and 25-33). Yamamoto does not define the invention as a "gum package" *per se*, however, Yamamoto teaches the composite is used to wrap food (gum is inclusive, and hence is a functional equivalent), see col. 13, lines 35-50.

While Yamamoto teaches the resinous coating may further comprise additives such as wax (col. 13, line 4), Yamamoto does not define wax as a slip agent *per se*. Yamamoto teaches the desire to add additives (col. 11, lines 40-41). Kittel teaches a thermal transfer laminate. Further, Kittle teaches adding slip additives such as wax in a cured composition (fixing processing additives). Kittel teaches adding slip agents are conventional to add for cured resin compositions at col. 10, line 24. Hence it would have been obvious to one of ordinary skill in the

art to modify the film of Yamamoto to provide slip agents since Kittel teaches it is conventional in a cured resin composition and wax and slip additives are equivalents as cited above.

While Yamamoto does not teach that fixing processing additives does not interfere with the sealing ability of the wax, this limitation is to intended use. It has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987). Further additives would not be expected to interfere with sealing ability.

11. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5783266 to Gehrke in view of USPN 4,177,310 to Steeves et al., USPN 6,228,486 to Kittel et al., and further in view of USPN 5,110,643 to Akao et al.

Gehrke teaches a multilayered laminate for chewing gum packaging in this order: a paper outer layer, an adhesive layer of polyethylene, a metal foil of aluminum or thin layer of metal formed by vapor deposition, see col. 4, lines 65-68, col. 5, line 10 and lines 39-45. Gehrke does not teach an electron cured beam cured layer *per se* over a paper layer or ink layer between paper and electron beam layer nor its composition. However Gehrke explains at col. 4, lines 38-41 additional layers may also include a suitable printing surface.

Steeves teaches a packaging multi-layer laminate comprising in order:

- A paper layer,
- An electron beam cured layer

at column 2, lines 38-47.

Steeves teaches an electron beam cured layer on the other side of the paper, stating it is known to cure oligomers and monomers such as epoxy and acrylic (epoxy acrylate) resins at col. 3, lines 55-60 and col. 4, lines 1-4, with an high electron beam on a paper substrate for the purpose of providing a smooth and uninterrupted resin film surface at col. 3, lines 26-29 and col. 3, lines 59-col. 4, lines 20. Steeves and Gehrke are analogous art because they are from the same field of endeavor, namely the food packaging art. Hence it would have been obvious to one of ordinary skill in the art to combine an electron beam cured layer on the paper side of Gehrke for the purpose of providing an economical substrate having smooth and impervious surface as taught by Steeves at col. 3, lines 26-29 and col. 3, lines 59-col. 4, lines 20.

Gehrke and Steeves is silent to adding slip agents. Kittel teaches a thermal transfer laminate. At col. 10, lines 30-65, Kittel teaches it is known to cure a resin layer of oligomers, such as acrylates such as epoxy resins (epoxy acrylate) providing any radiation curable coating material (electron beam cured layer) on a paper substrate. Hence it would have been obvious to one of ordinary skill in the art to combine slip agents in the curable layer of Gehrke and Steeves because Kittel teaches it is conventional to use in a cured resin composition as taught by Kittel at col. 10, line 24.

The combination of Gehrke, Steeves, and Kittle do not teach an additional wax layer on an electron beam cured layer. Akao teaches a multilayered packaging material for food (see col. 14, line 17). The laminate of Akao comprises paper, metal foil and/or inorganic metallic layers, polymer layers, and a protective layer of wax in various arrangements as shown in Figures 1-40. Col. 9, lines 12-18 teach the protective layer of wax over a metallic membrane. Akao explains at col. 8, lines 43-68 the metallic membrane of aluminum may be on one or both faces of a flexible

sheet layer and lists paper and polymer layers as a type of flexible material at col. 9, lines 30-45. See also col. 1, lines 20-26 and lines 45-50 teaching using aluminum foil. A gas barrier layer is also provided at col. 6, lines 44-60 over papers and polyethylene films. While Akao does not teach wax disposed on an electron beam cured layer, it would have been obvious to one of ordinary skill in the art to provide an protective layer of wax over the entire laminate package of the combination of Gehrke, Steeves, and Kittle because Akao teaches wax is used as a protective layer for a multilayered package that includes paper, foil and polymer layers as cited above.

While Gehrke does not explicitly teach a counterband, Gehrke does teach at col. 7, lines 11-33, the use of an overwrap that encloses a plurality of individual sticks of chewing gum and shows the overwrap in Figures 6-8, which is equivalent to a counterband. Further, a counterband has the same essential structure as described above. That the invention is called a counterband or used as a counterband is intended use and is not a patentable limitation. It has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987).

Gehrke does not mention that slip agents have become reacted-in during the curing process. With respect to slip agents that have become reacted-in, it is elementary that the mere recitation of newly discovered function or property, inherently possessed by things in the prior art, does not cause a claim drawn to those things to distinguish over the prior art." *In re swinehart et al.*, 169 USPQ 226 at 229. Since the combination of Gehrke, Steeves, Kittel, and Akao references teach all of Applicant's claimed compositional and positional limitations, it is inherent that the reference article function in the same manner claimed by Applicant. The

burden is upon Applicant to prove that the subject matter shown to be in the prior art does not possess the characteristic relied on.

Response to Arguments

Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

Peiffer is still used to teach the structure and metallizing aluminum layer on paper. Gehrke is still used to teach the structure of a gum packaging. Kjelggard is still used to teach the barrier compositions. Steeves is still used to teach the formation of metallizing paper to form an aluminium inorganic layer. Kittel is still used to teach the resin curable composition. With respect to the wax layer of claims 20-22, the arguments have been considered but are moot in view of the new ground(s) of rejection. Applicant traverses the combination of Peiffer in view of Steeves, alleging it is not obvious to combine because the metallization of paper is performed in two different ways, thereby resulting in a paper that has been metallized twice. The Applicant has not persuasively argued because the instant claims contain the language "comprising" and do not exclude the incorporation of a second metallized layer.

Applicant traverses the Yamamoto rejection. Applicant traverses the position that the characterization of an electron beam cured coating is an equivalent to a corona treated substrate. Applicant alleges an electron beam uses higher voltage than corona treatment. However, corona treatment still involves the use of an electron beam and is therefore considered equivalent. Applicant argues in his remarks that corona treatment uses an electron beam. The Applicant has not persuasively argued.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. USPN 6,010,724 to Boyd et al. teaches a composite used as a counterband. USPN 4577205 to Shibata et al. teaches electron cured ink on paper and curing the entire package. USPN 5,510,124 to Kopecky et al. teaches a method for packaging single chewing gum. USPN 5,851,610 to Ristey et al. teaches a shrink film that conforms to the shape of a container using slip agents for packaging needs.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tamra L. Dicus whose telephone number is 571-272-1519. The examiner can normally be reached on Monday-Friday, 7:00-4:30 p.m., alternate Fridays. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly can be reached on 571-272-1526. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

April 28, 2004

[tld]

CYNTHIA H. KELLY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700